## Abstract:

The present invention relates to methods for identifying substances that modulate the immune response in a genotype specific manner. In general, methods of the invention involve genotyping subjects to identify those having a genotype associated with one or more inflammatory disorder. These subjects, or cells derived therefrom, are monitored for a biomarker for activation of the inflammatory system. The subjects or cells are then contacted with a test substance and the biomarker is re-measured. If the biomarker changes to indicate a decreased activation of the inflammatory system, the test substance may have an anti-inflammatory effect on subjects with that genotype.